

TPDS case studies of head and neck patients

Craig Miller,
Catherine Lau, Leo Cheng

Department of Oral and Maxillofacial Surgery,
St Bartholomew's, the Royal London, and
Homerton University Hospitals, London, UK

Introduction:

Surgical drains are a major factor affecting the period of hospitalization of patients recovering from head and neck surgery. The optimal time to remove drains has not been defined, however, it is routine practice to measure the drainage every 24 hours and remove the drain when the drainage falls below 25 ml. (1) We have collected data on the postoperative drainage volumes of 15 glandular surgery patients that had tissue patch double sided (TPDS) placed surgically during operative closure. There are in excess of 15,000 devices that have been applied by surgeons to control and prevent air, blood or fluid leakage in a range of surgical procedures (2). It was hypothesized that the air/blood and fluid tight barrier that TPDS forms, will assist in the reduction of serous-sanguineous, chylous and blood drainage after surgery.

Method:

15 head and neck surgical patients were chosen to have TPDS placed. Surgical closure of all patients was undertaken in layers and all vessels were tied off using sutures or ligaclips. TPDS was placed on the surgical bed upon closure. Data was then collected post operatively with the use of proformas. This data included ease of use, volume of postoperative drainage fluid and the presence of hematoma.

Results:

We found that the average volume drained 24 hours post-surgery was 50ml and that all patients could be discharged the day the drain was removed. 2 parotid surgery required neck dissection and pedicled flap repair for fungating metastatic tumour. The data collected also shows there was no sign of surgical site hematoma and TPDS was easy to use achieving a 5/5 on ease of use.

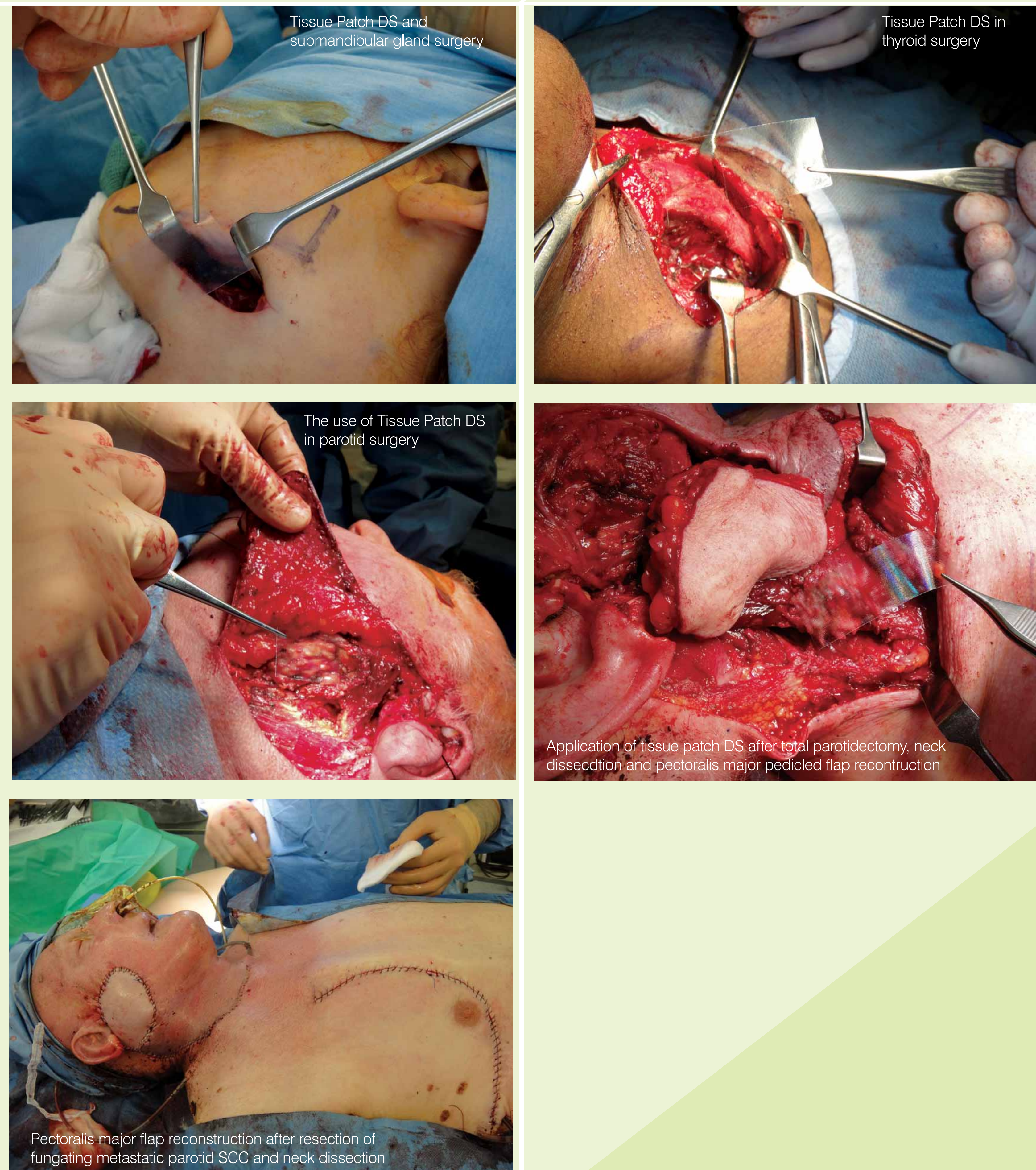
Conclusion:

The use of TPDS may be valuable in the surgical armamentarium. It is important to realize this is a surgical adjunct and that surgical closure should be the first line in minimizing postoperative fluid drainage. It is easy to use and the use of it resulted in no postoperative hematomas. Further the average drainage post operatively when used was 50mls in 24 hours. We propose that a randomized control trial be instigated at The Royal London hospital and its satellite hospitals into its use in parotid and thyroid surgery. The exclusion criteria for both would be those patients who need an associated neck dissection and whose wounds cannot be closed primarily, those patients who are deemed obese and those with clotting dysfunction. This will enable the comparison of a control and interventional group to assess if the reduction in drainage is clinically significant. Ethics committee approval will be sought.

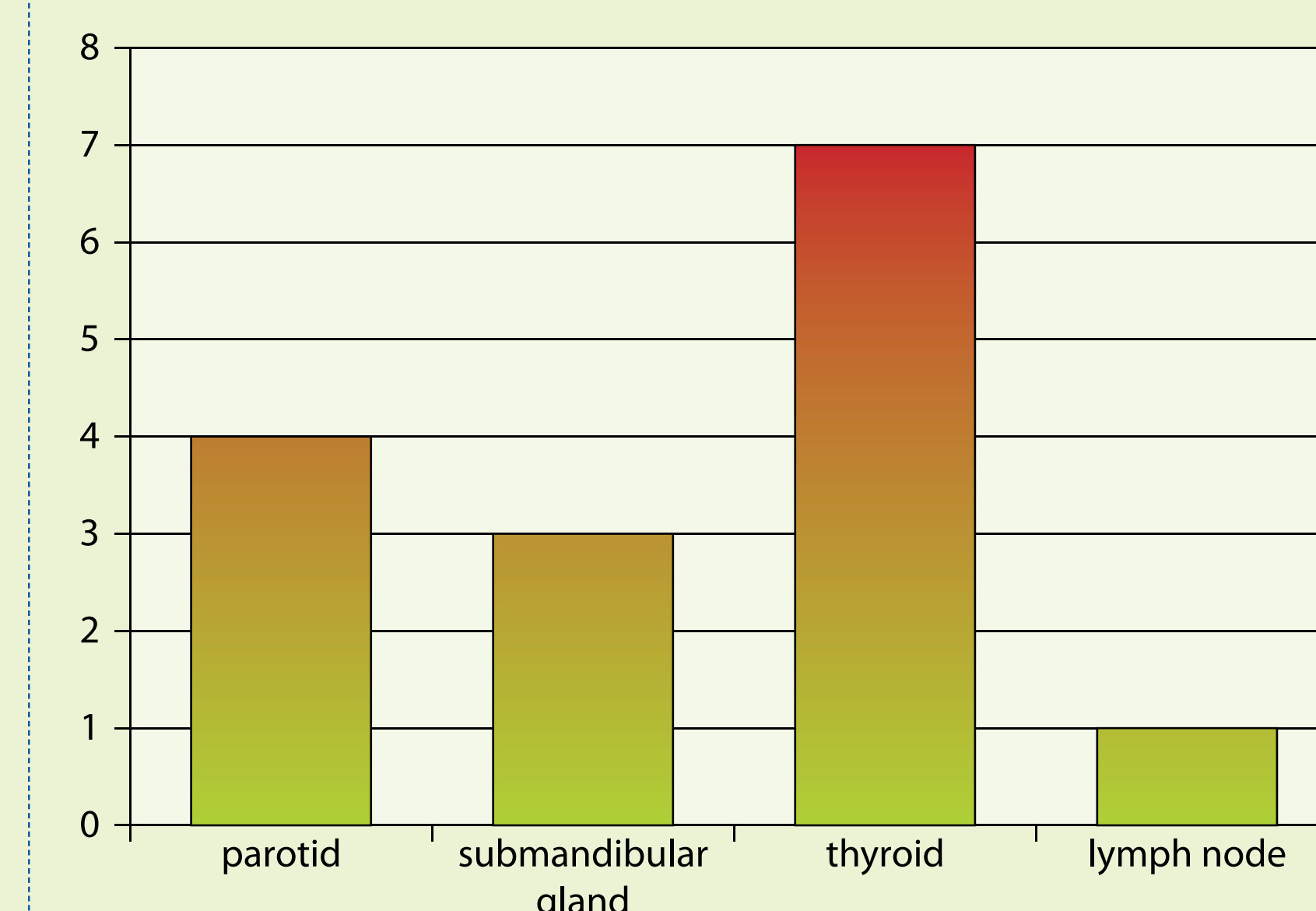
References:

- (1) Harris T, Doorlarkhan Z, Fagan JJ. Timing of removal of neck drains following head and neck surgery. *Ear Nose Throat J* 2001(4) 186-9
- (2) Manley D. The Fate of tissuepatch: Tissue response and in vivo degradation TissueMed CS64/01.

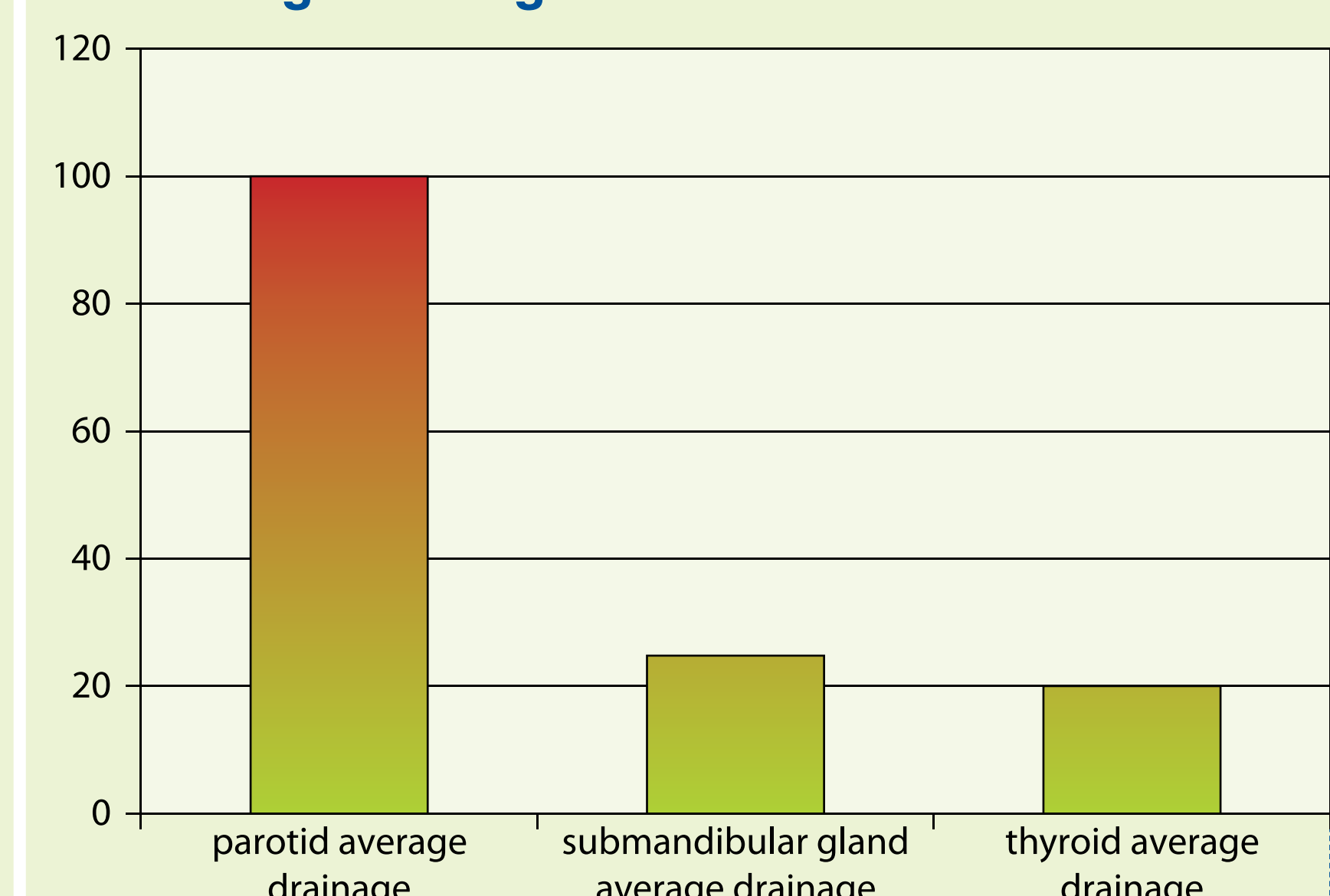
Figure 1



Case load of TP3DS



Average drainage in mls



Case load of TP3DS

